FEDERAL FUNDING OPPORTUNITY

Fiscal Year (FY) 2009 Summer Undergraduate Research Fellowship – NIST Gaithersburg

Overview Information

1. Federal Agency Name(s): Department of Commerce, National Institute of Standards and Technology (NIST)

2. Funding Opportunity Title: FY 2009 Summer Undergraduate Research Fellowship (SURF) – NIST GAITHERSBURG

3. Announcement Type: Initial Announcement

4. Funding Opportunity Number: 2009-SURF-G-01

5. Catalog of Federal Domestic Assistance (CFDA) Number(s): 11.609

6. Dates: February 17, 2009, 5:00 p.m. Eastern Standard Time

Executive summary: The Summer Undergraduate Research Fellowship (SURF) NIST Gaithersburg Programs are soliciting applications in the areas of Electronics and Electrical Engineering, Manufacturing Engineering, Nanoscale Science and Technology, Chemical Science and Technology, Physics, Materials Science and Engineering/Neutron Research, Building and Fire Research, and Information Technology.

Full Text of Announcement

a. Funding Opportunity Description:

Authority: 15 U.S.C. § 278g-1

The SURF NIST Gaithersburg Programs are soliciting applications in the areas of Electronics and Electrical Engineering, Manufacturing Engineering, Nanoscale Science and Technology, Chemical Science and Technology, Physics, Materials Science and Engineering/Neutron Research, Building and Fire Research, and Information Technology.

The SURF programs will provide an opportunity for the NIST laboratories and the National Science Foundation (NSF) to join in a partnership to encourage outstanding undergraduate students to pursue careers in science and engineering. The programs will provide research opportunities for students to work with internationally known NIST scientists, to expose them to cutting-edge research and promote

the pursuit of graduate degrees in science and engineering.

The SURF NIST Gaithersburg Program Directors will work with appropriate department chairs, outreach coordinators, and directors of multi-disciplinary academic organizations to identify outstanding undergraduates (including graduating seniors) who would benefit from off-campus summer research in a world-class scientific environment.

The objectives of the SURF Programs are to build a mutually beneficial relationship between the student, the institution, and NIST. NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. **NIST** embodies a science culture, developed from a large and well-equipped research staff that enthusiastically blends programs that address the immediate needs of industry with longer-term research that anticipates future needs. This occurs in few other places and enables the Electronics and Electrical Engineering Lab (EEEL), Manufacturing Engineering Lab (MEL), Center for Nanoscale Science and Technology (CNST), Chemical Science and Technology Lab (CSTL), Physics Lab (PL), Materials Science and Engineering Lab (MSEL)/NIST Center for Neutron Research (NCNR), Building and Fire Research Lab (BFRL), and Information Technology Lab (ITL) to offer unique research and training opportunities for undergraduates, providing them a research-rich environment and exposure to state of the art equipment.

NIST's EEEL strives to be the world's best source of fundamental and industrial-reference measurement methods and physical standards for electrotechnology. To be a world-class resource for semiconductor measurements, data, models, and standards focused on enhancing U.S. technological competitiveness in the world market, research is conducted in semiconductor materials, processing, devices, and integrated circuits to provide, through both experimental and theoretical work, the necessary basis for understanding measurement-related requirements in semiconductor technology. To provide the world's most technically advanced and fundamentally sound basis for all electrical measurements in the United States, the EEEL's research projects include maintaining and disseminating the national electrical standards, developing the measurement methods and services needed to support electrical materials, components, instruments, and systems used for the generation, transmission, and application of conducted electrical power, and related activities in support of the electronics industry including research on video technology and electronic product data exchange.

NIST's MEL conducts theoretical and experimental research in length, mass, force, vibration, acoustics, and ultrasonics, as well as intelligent machines, precision control of machine tools, and information technology for the integration of all elements of a product's life cycle. Much of this applied research is devoted to overcoming barriers to the next technological revolution, in which manufacturing facilities are spread across the globe. MEL's research and development leads to standards, test methods and data that are crucial to industry's success in exploiting advanced manufacturing technology. Critical components of manufacturing at any level are measurement and measurement-related standards, not just of products, but increasingly of information about products and processes. Thus, MEL programs enhance both physical and information-based measurements and standards. Research projects can be theoretical or experimental, and will range in focus from intelligent machine control, characterizing a manufacturing process or improving product data exchange in manufacturing and related industries such as healthcare, to the accurate measurement of an artifact's dimensions.

NIST’s CNST endeavors to provide science and industry with the necessary measurement methods, standards, and technology to facilitate the development and productive use of nanotechnology from discovery to production. The CNST is a new and expanding part of NIST focusing initially on three broad program areas: 1) Measurements for Future Electronics, 2) Measurements for Nanofabrication and Nanomanufacturing, and 3) Measurements for Energy Storage, Conversion, and Transport. Among the projects currently underway within these program areas are nanomagnetics, atomic scale characterization and fabrication, nanoscale measurement and fabrication using laser-controlled atoms, advanced Focused Ion Beam (FIB) development, modeling nanostructures in mesoscopic environments, characterization of nanophotonic devices, transport in nanoscale devices, scanned force microscopy, diblock copolymers, nanoparticle assembly, metrology for electron-beam lithography, advanced electron-beam resist development, and metrology for directed assembly. Student research projects can be theoretical or experimental.

NIST's CSTL strives to be a world-class research laboratory that is recognized by the nation as the primary source for the chemical, biochemical, and chemical engineering measurements, data, models, and reference standards that are required to enhance U.S. industrial competitiveness in the world market. CSTL is the primary reference laboratory for chemical measurements, entrusted with developing, maintaining, advancing, and enabling the chemical measurement system for the United States of America, thereby enhancing industry's productivity and competitiveness, establishing comparability of measurements to facilitate equity of global trade, and improving public health, safety, and environmental quality. CSTL's activities include: Transportation, Biomaterials, Biotechnology, Chemical and Allied Products, Energy Systems, Environmental Technology and Systems, Health and Medical Products and Services, Industrial and Analytical Instruments and Services, Forensics, Microelectronics, Food and Nutritional Products, International Measurement Standards, Data and Informatics, Homeland Security, and emerging Technologies (Nanotechnology, Molecular Electronics, Microfluidics, and Combinatorial Chemistry).

Attending to the long-term needs of many U.S. high-technology industries, NIST's PL conducts basic research in the areas of quantum, electron, optical, atomic, molecular, and radiation physics. To achieve these goals, PL staff develop and utilize highly specialized equipment, such as polarized electron microscopes, scanning tunneling microscopes, lasers, and x-ray and synchrotron radiation sources. Research projects can be theoretical or experimental and will range in focus from computer modeling of fundamental processes through trapping atoms and choreographing molecular collisions, to standards for radiation therapy.

NIST's MSEL/NCNR program combines the strengths and facilities of two separate Operating Units (the Materials Science and Engineering Laboratory, MSEL, and the NIST Center for Neutron Research, NCNR) in a joint SURF Program. NIST’s MSEL conducts basic research in the electronic, magnetic, optical, superconducting, mechanical, thermal, chemical, and structural properties of metals, ceramics, polymers, and composites. Much of this applied research is devoted to overcoming barriers to the next technological revolution, in which individual atoms and molecules will serve as the fundamental building blocks of devices. Preparation of unique materials by atomic level tailoring of multi-layers, perfect single crystals, and nanocomposites are just some of the future technologies being developed and explored in NIST's MSEL. To achieve these goals, staff develop and utilize highly specialized equipment, such as high resolution electron microscopes, atomic force microscopes, neutron scattering instruments, x-ray diffraction sources, lasers, magnetometers, plasma furnaces, melt

spinners, molecular beam epitaxy systems, and thermal spray systems. The NIST Center for Neutron Research (NCNR) is a national user facility for probing the structure and dynamics of materials, ranging from magnetics to polymers to biomaterials, with cold and thermal neutrons. The unique properties of neutrons can be exploited by a variety of measurement techniques to provide information not available by other means. They are particularly well suited to investigate all forms of magnetic materials such as those used in computer memory storage and retrieval. Atomic motion, especially that of hydrogen, can be measured and monitored, like that of water during the setting of cement. Residual stresses such as those inside stamped steel automobile parts can be mapped. Neutron-based research covers a broad spectrum of disciplines, including engineering, biology, materials science, polymers, chemistry, and physics. The NCNR's neutron source provides the intense beams of neutrons required for these types of measurements. There are more than 25 experiment stations, most of which are used for neutron scattering research. The NCNR supports basic research and applied research on a wide range of technologically important materials such as complex fluids, protein-lipid complexes, nanocomposites and magnetic multilayers. Research projects in this joint MSEL/NCNR program can be theoretical or experimental and will range in focus from the structural, chemical, magnetic, and morphological characterization of advanced materials to the accurate measurement of the unique properties possessed by these special materials, including the measurement of vibrations, rotations, tunneling and diffusive motions of molecules and macromolecules.

NIST's BFRL provides technical leadership and participates in developing the measurement and standards infrastructure related to materials critical to U.S. industry, academia, government, and the public. Building and Fire Research programs at NIST cover a full range of materials issues from design to processing to performance. Separate research initiatives address concrete, coating, earthquake resistance of structures, fire science and engineering, the theory and modeling of materials, and materials reliability. Through laboratory-organized consortia and one-on-one collaborations, BFRL's scientists and engineers work closely with industrial researchers, manufacturers of high-technology products, and the major users of advanced materials.

NIST's ITL responds to industry and user needs for objective, neutral tests for information technology. These are enabling tools that help companies produce the next generation of products and services, and that help industries and individuals use these complex products and services. ITL works with industry, research and government organizations to develop and demonstrate tests, test methods, reference data, proof of concept implementations and other infrastructural technologies. Program activities include: high performance computing and communications systems; emerging network technologies; access to, exchange, and retrieval of complex information; computational and statistical methods; information security; and testing tools and methods to improve the quality of software.

SURF students will have the opportunity to work one-on-one with our nation's top scientists and engineers. It is anticipated that successful **SURF** students will move from a position of reliance on guidance from their research advisors to one of research independence during the twelve-week period. One goal of this partnership is to provide opportunities for our nation's next generation of scientists and engineers to engage in world-class scientific research at **NIST,** especially in ground-breaking areas of emerging technologies. This carries with it the hope of motivating individuals to pursue a Ph.D. in physics, chemistry, materials science, nanotechnology, neutron research, engineering, mathematics, or computer science, and to consider research careers.

Statutory Authority: The authority for the SURF NIST Gaithersburg Program is 15 U.S.C. § 278g-1,

which authorizes NIST to fund financial assistance awards to students at institutions of higher learning within the United States. These students must show promise as present or future contributors to the missions of NIST.

b. Award Information

Funds budgeted for payments to students under these programs are stipends, not salary. The stipend is an amount that is expected to be provided to the participating student to help defray the cost of living, for the duration of the program, in the Washington National Capital Region. The SURF NIST Gaithersburg Programs will not authorize funds for indirect costs or fringe benefits. The table below summarizes the anticipated annual funding levels from the NSF to operate our REU (Research Experience for Undergraduates) programs, subject to program renewals and availability of funds. In some programs, anticipated NIST co-funding will supplement the number of awards supported. Program funding will be available to provide for the costs of stipends ($363.64 per week per student), travel, and lodging (up to $3400 per student).

Program	Anticipated NSF Funding	Anticipated NIST Funding	Total Program Funding	Anticipated No. of Awards
EEEL	$72,960	$40,000	$112,960	~15
MEL	$87,000	$0	$87,000	~13
CNST	$47,400	$0	$47,400	~5
CSTL	$0	$105,000	$105,000	~16
PL	$116,000	$65,000	$181,000	~26
MSEL/NCNR	$130,000	$0	$130,000	~22
BFRL	$81,000	$0	$81,000	~10
ITL	$0	$40,000	$40,000	~5

The actual number of awards made under this announcement will depend on the proposed budgets and the availability of funding.

The funding instrument will be a cooperative agreement as NIST will be substantially involved in the program due to collaboration with funding recipients in the scope of work.

NIST expects that individual awards to institutions will range from approximately $3,000 to $70,000. Funding for student housing will be included in cooperative agreements awarded as a result of this notice.

The SURF NIST Gaithersburg Programs are anticipated to run from May 26, 2009 through August 7, 2009; adjustments may be made to accommodate specific academic schedules (e.g., a limited number of 9-week cooperative agreements).

c. Eligibility Information

1. Eligible Applicants

NIST's SURF Gaithersburg Programs are open to colleges and universities in the United States and its territories with degree granting programs in materials science, chemistry, nanoscale science, neutron research, engineering, computer science, mathematics, or physics. Participating students must be U.S. citizens or permanent U.S. residents.

2. Cost Sharing or Matching: The SURF NIST Gaithersburg Programs do not require any matching funds.

d. Application and Submission Information

1. Address to Request Application Package

Users of Grants.gov (www.grants.gov) will be able to download a copy of the application package, complete it off line, and then upload and submit the application package and associated proposal information via the Grants.gov website.

For electronic submission - Applicants should follow the Application Instructions provided at Grants.gov when submitting a response to this funding opportunity. Applicants are encouraged to start early and not wait to the approaching due date before logging on and reviewing the instructions for submitting an application through Grants.gov.

For paper submission - For the EEEL, MEL, CNST, CSTL, PL, MSEL/NCNR, BFRL, and ITL SURF NIST Gaithersburg Programs, an application kit, containing all required forms and certifications, may be obtained by accessing the following website: http://www.surf.nist.gov/surf2.htm. An application kit for the Gaithersburg programs may also be obtained by contacting Ms. Anita Sweigert, Administrative Coordinator, SURF NIST Gaithersburg Programs, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8400, Gaithersburg, MD 20899-8400, (301) 975-4200. Applicant institutions must submit one (1) signed original and two (2) copies of the application.

2. Content and Form of Application Submission

All SURF Gaithersburg Program proposals are submitted to Ms. Anita Sweigert, Administrative Coordinator, SURF NIST Gaithersburg Programs, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8400, Gaithersburg, MD 20899-8400. Each proposal is examined for completeness and responsiveness. Incomplete or non-responsive proposals will not be considered for funding, and the applicant will be notified in writing. The Program will retain one copy of each non-responsive application for three years for record keeping purposes. The remaining copies will be destroyed. Proposals include the required forms described in "Other Submission Requirements" below and the following:

(A) Student Information (student's name and university should appear on all of these documents):

(1) student application information cover sheet;
(2) academic transcript for each student nominated for participation (it is recommended that students have a G.P.A. of 3.0 or better, out of a possible 4.0);

(3) a statement of motivation and commitment from each student to participate in the 2009 SURF program, including a description of the student's prioritized research interests;
(4) a resume for each student;
(5) two letters of recommendation for each student that should address the evaluation criteria in e.1.(A); and
(6) copy of passport, green card, or birth certificate as confirmation of U.S. citizenship or permanent legal resident status for each student.

(B) Information About the Applicant Institution:
(1) description of the institution's education and research programs; and
(2) a summary list of the student(s) being nominated.

Institution proposals will be separated into student/institution packets. Each student/institution packet will be comprised of the required application forms, including a complete copy of the student information and a complete copy of the institution information. The student/institution packets will be directed to the SURF NIST Gaithersburg Program designated by the student as his/her first choice.

3. Submission Dates and Times: All SURF NIST Gaithersburg Program applications, paper and electronic, must be received no later than 5:00 p.m. Eastern Standard Time February 17, 2009.

4. Intergovernmental Review: Executive Order 12372: Applications under this program are not subject to Executive Order 12372, “Intergovernmental Review of Federal Programs."

5. Funding Restrictions - The SURF NIST Gaithersburg Programs will not authorize funds for indirect costs or fringe benefits.

6. Other Submission Requirements: Applications that are sent via surface mail should be sent to Ms. Anita Sweigert, Administrative Coordinator, SURF Gaithersburg Programs, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8400, Gaithersburg, MD 20899-8400

Instructions for Applying for the NIST Announcement SURF-G-2009-01:

The following forms are available as part of the Grants.gov application kit and can be completed through the download application process.

- SF-424, Application for Federal Assistance
- SF-424A, Budget Information – Nonconstruction Programs
- SF-424B, Assurances – Nonconstruction Programs
- CD-511, Certification Regarding Lobbying

The list of certifications and assurances referenced in item 21 of the SF-424 is contained in the SF-424B.

In order for an application to be considered complete it must meet all the application documentation requirements stated in the Federal Funding Opportunity notice.

Applicant may choose to scan or create the necessary documents and then attach them to the application in Grants.gov. **The following forms and documents are required, but are not available on Grants.gov:**

Institutional Description and Formal Proposal

Student Information – one of each for each student that is being nominated:

- Student Application Form (can be found at http://www.surf.nist.gov/pdf/apchklst.pdf)
- Official Transcript
- Personal Statement
- Resume
- Two letters of Recommendation
- Copy of student's passport, green card, or birth certificate as verification of citizenship or legal permanent resident

If you choose to apply via Grants.gov all requirements of the application must be included.

For further information or questions regarding applying electronically for the SURF-G-2009-01 announcement please contact Christopher Hunton at 301-975-5718, e-mail address christopher.hunton@nist.gov, or Sue Li at 301-975-8817.

The Grants.gov registration process must be completed before a new registrant can apply electronically. If all goes well, the registration process takes from 3 to 5 business days. If problems are encountered, the registration process can take up to 2 weeks. Only authorized individual(s) will be able to submit the application, and the system may need time to process a submitted application. Applicants are strongly encouraged to start early and not to wait until the approaching due date before logging on and reviewing the instructions for submitting an application through Grants.gov. It may take several days or longer from the initial log-on before a new Grants.gov system user can submit an application. Applicants should save and print the proof of submission they receive from Grants.gov. If problems occur while using Grants.gov, the applicant is advised to (a) print any error message received, and (b) call Grants.gov directly at 800-518-4726 for immediate assistance. Grants.gov hours of operation are Monday-Friday, 7:00 a.m. to 9:00 p.m. Eastern Standard Time (except for Federal holidays

e. Application Review Information

1. Evaluation Criteria: For the SURF NIST Gaithersburg Programs, the evaluation criteria are:

(A) Evaluation of Student's Interest in Participating in the Program, Academic Ability, Laboratory Experience and Advanced Degree Interest: Evaluation of completed course work; English proficiency, writing proficiency, safety consciousness, research skills; social skills, leadership potential, innovativeness, independence, honesty, grade point average in courses relevant to the SURF NIST Gaithersburg Programs, career goals, honors and awards, commitment of the student to working in a laboratory environment, and interest in pursuing graduate school.

(B) Institution's Commitment to Program Goals: Evaluation of the institution's academic department(s) relevant to the discipline(s) of the student(s).

Each of these factors is given equal weight in the evaluation process.

2. Review and Selection Process

The selection process occurs in three rounds. Each SURF NIST Gaithersburg Program will have three independent, objective NIST employees, who are knowledgeable in the scientific areas of the program, conduct a technical review of each student/institution packet based on the Evaluation Criteria for the SURF NIST Gaithersburg Programs described in this notice. For the first round of evaluations and placement, each technical reviewer will evaluate according to the Evaluation Factors listed above and provide a score for each student/institution packet. Based on the average of the reviewers' scores, a rank order of the student/institution packets will be prepared within each laboratory.

The SURF Program Director (Selecting Official) for each laboratory, who is a NIST program official who did not participate in the technical evaluations, will then apply the following Selection Factors, which may result in revisions to the rank order: relevance of the student's course of study to the program objectives of the NIST laboratory in which that SURF NIST Gaithersburg Program resides as described in the Funding Opportunity Description section of this notice, the relevance of the student's statement of commitment to the goals of the SURF NIST Gaithersburg Program, fit of the student's interests and abilities to the available projects in that laboratory program, compatibility of the student with the research environment in that laboratory, assessment of whether the laboratory experience is a new opportunity for the student which may encourage future postgraduate training and the availability of funding.

Based on these results, the Program Director (Selecting Official) for each laboratory will divide the rank ordered student/application packets into three categories: Priority Funding; Fund if Possible; and Do Not Fund. Student/institution packets placed in the Priority Funding category will be selected for funding in that SURF Gaithersburg Program, contingent upon availability of funds. Student/institution packets placed in the Do Not Fund category will not be considered for funding by any other NIST laboratories.

Student/institution packets placed in the Fund if Possible Category may be considered for funding at a later time by the category-designating SURF Program; in the interim period these students will be released for consideration for funding by the SURF NIST Gaithersburg Program designated by the student as his/her second choice. The student's second choice laboratory's SURF Program Director will take into consideration the recommendations of the reviewers who conducted the technical reviews for the student's first choice SURF NIST Gaithersburg Program, apply the selection factors noted above as applied to that laboratory and arrive at a final rank order of the students available for the second round of selections and placements. Any SURF NIST Gaithersburg Program may choose not to participate in the second round if the Program Director does not see suitable students in the second round appropriate for the available projects. Students not selected during the first or second round are available for the third round of selections.

Students not selected for funding by their first or second choice SURF NIST Gaithersburg Program,

and students who did not designate a second choice, will then be considered for funding from all SURF NIST Gaithersburg Programs that still have slots available in a third round, conducted using the same process as the second round. In making selections for the third round of selections and placement, each SURF NIST Gaithersburg Program Director (Selecting Official) will take into consideration the recommendations of the reviewers who conducted the technical reviews for the student's first choice SURF NIST Gaithersburg Program, the selection factors noted above as applied to that laboratory and rank order the students in this selection round. Any SURF NIST Gaithersburg Program may choose not to participate in the third round if there are no slots available. Substitutions for students who decline offers will be made from the remaining pool of ranked students consistent with the program review process.

The final approval of selected applications and award of cooperative agreements will be made by the NIST Grants Officer based on compliance with application requirements as published in this notice and other applicable legal and regulatory requirements. NIST also reserves the right to reject an application where information is uncovered that reflects adversely on an applicant's business integrity, resulting in a determination by the Grants Officer that an applicant is not presently responsible. Applicants may be asked to modify objectives, work plans, or budgets and provide supplemental information required by the agency prior to award. The decision of the Grants Officer is final.

The SURF NIST Gaithersburg Programs will retain one copy of each unsuccessful application for three years for record keeping purposes, and unsuccessful applicants will be notified in writing. The remaining copies will be destroyed.

f. Award Administration Information

1. Award Notices

Successful finalists will receive a cooperative agreement award document from the Grant Officer. The document will be mailed via surface mail in triplicate. The recipient should have an authorized official at the organization sign and return two copies to the address listed in the award document. The award document will also include the standard terms and conditions, general terms and conditions (if any), and special award conditions (if any) that are applicable.

2. Administrative and National Policy Requirements

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements: The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements, 73 Fed. Reg. 7696 (February 11, 2008), is applicable to this announcement. On the form SF-424, the applicant's 9-digit Dun and Bradstreet Data Universal Numbering System (DUNS) number must be entered in the Applicant Identifier block.

Collaborations with NIST Employees: All applications should include a description of any work proposed to be performed by an entity other than the applicant, and the cost of such work should ordinarily be included in the budget.

If an applicant proposes collaboration with NIST, the statement of work should include a statement of

this intention, a description of the collaboration, and prominently identify the NIST employee(s) involved, if known. Any collaboration by a NIST employee must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the approval of the proposed collaboration. Any unapproved collaboration will be stricken from the proposal prior to the merit review.

Use of NIST Intellectual Property: If the applicant anticipates using any NIST-owned intellectual property to carry out the work proposed, the applicant should identify such intellectual property. This information will be used to ensure that no NIST employee involved in the development of the intellectual property will participate in the review process for that competition. In addition, if the applicant intends to use NIST-owned intellectual property, the applicant must comply with all statutes and regulations governing the licensing of Federal government patents and inventions, described at 35 U.S.C. §§ 200-212, 37 C.F.R. Part 401, 15 C.F.R. Part 14.36, and in Section B.21 of the Department of Commerce Pre-Award Notification Requirements, 73 Fed. Reg. 7696 (February 11, 2008). Questions about these requirements may be directed to the Counsel for NIST, 301-975-2803.

Any use of NIST-owned intellectual property by a proposer is at the sole discretion of NIST and will be negotiated on a case-by-case basis if a project is deemed meritorious. The applicant should indicate within the statement of work whether it already has a license to use such intellectual property or whether it intends to seek one.

If any inventions made in whole or in part by a NIST employee arise in the course of an award made pursuant to this notice, the United States government may retain its ownership rights in any such invention. Licensing or other disposition of NIST's rights in such inventions will be determined solely by NIST, and include the possibility of NIST putting the intellectual property into the public domain.

Initial Screening of all Applications: All applications received in response to this announcement will be reviewed to determine whether or not they are complete and responsive to the scope of the stated program objectives. Incomplete or non-responsive applications will not be reviewed for technical merit. The Program will retain one copy of each non-responsive application for three years for record keeping purposes. The remaining copies will be destroyed.

Research Projects Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects: Any proposal that includes research involving human subjects, human tissue, data or recordings involving human subjects must meet the requirements of the Common Rule for the Protection of Human Subjects, codified for the Department of Commerce at 15 C.F.R. Part 27. In addition, any proposal that includes research on these topics must be in compliance with any statutory requirements imposed upon the Department of Health and Human Services (DHHS) and other federal agencies regarding these topics, all regulatory policies and guidance adopted by DHHS, the Food and Drug Administration, and other Federal agencies on these topics, and all Presidential statements of policy on these topics.

NIST will accept the submission of human subjects protocols that have been approved by Institutional Review Boards (IRBs) registered with DHHS and performed by entities possessing a current, valid Federal-wide Assurance (FWA) from DHHS. NIST will not issue a single project assurance (SPA) for any IRB reviewing any human subjects protocol proposed to NIST.

On August 9, 2001, the President announced his decision to allow Federal funds to be used for research on existing human embryonic stem cell lines as long as prior to his announcement (1) the derivation process (which commences with the removal of the inner cell mass from the blastocyst) had already been initiated and (2) the embryo from which the stem cell line was derived no longer had the possibility of development as a human being. NIST will follow guidance issued by the National Institutes of Health at http://ohrp.osophs.dhhs.gov/humansubjects/guidance/stemcell.pdf for funding such research.

Research Projects Involving Vertebrate Animals: Any proposal that includes research involving vertebrate animals must be in compliance with the National Research Council's "Guide for the Care and Use of Laboratory Animals" which can be obtained from National Academy Press, 2101 Constitution Avenue, NW., Washington, DC 20055. In addition, such proposals must meet the requirements of the Animal Welfare Act (7 U.S.C. § 2131 et seq.), 9 C.F.R. Parts 1, 2, and 3, and if appropriate, 21 C.F.R. Part 58. These regulations do not apply to proposed research using pre-existing images of animals or to research plans that do not include live animals that are being cared for, euthanized, or used by the project participants to accomplish research goals, teaching, or testing. These regulations also do not apply to obtaining animal materials from commercial processors of animal products or to animal cell lines or tissues from tissue banks.

Limitation of Liability: Funding for the programs listed in this notice is contingent upon the availability of Fiscal Year 2009 appropriations. NIST issues this notice subject to the appropriations made available under The Consolidated Appropriations Act, 2009 (P.L. 110-329). In no event will NIST or the Department of Commerce be responsible for proposal preparation cost if these programs(s) fail to receive funding or are cancelled because of other agency priorities. Publication of this announcement does not obligate NIST or the Department of Commerce to award any specific project or to obligate any available funds.

3. Reporting

The successful applicants will be required to complete a SF-269, Financial Status Report. In addition, each student will be required to complete an abstract that will be submitted and made a part of the official award file and will take the place of the Final Project/Performance report required as part of the closeout procedures of any award.

g. Agency Contact(s):

Ms. Anita Sweigert, Administrative Coordinator, SURF Gaithersburg Programs, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8400, Gaithersburg, MD 20899-8400, Tel: (301) 975-4200, E-mail: anita.sweigert@nist.gov. The SURF Gaithersburg program website is: http://www.surf.nist.gov/surf2.htm. All grants related administration questions concerning this program should be directed to Hope Snowden, NIST Grants and Agreements Management Division at (301) 975-6002 or hope.snowden@nist.gov or for assistance with using Grants.gov contact support @grants.gov.